

REMARKS

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Versions with Markings to Show Changes Made."

Claims 10-13, 15-16, 21, 22, 24, 25 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lang in view of Takada et al. Applicants respectfully traverse this rejection because the cited references, alone or in combination, do not disclose or suggest the digital data transfer circuit including buffer control means for controlling recording and reproduction of disc recording means according to the remaining capacity of at least one buffering means that buffers the digital video data, as now recited in amended independent claims 10, 11 and 16. As amended, claims 10, 11 and 16 now call for buffer control features originally described in claims 29-30, which are not rejected over the combination of Lang and Takada et al. Accordingly, claims 10, 11 and 16, and their respective dependent claims, are believed to be allowable at least over Lang and Takada et al.

In the Office Action, claims 28-30 are rejected as being unpatentable over Lang in view of Takada et al. and Radice. As such, Applicants respectfully traverse the rejection of claims 10, 11 and 16 with respect to the combination of all three of these references, since features of claims 28-30 are now incorporated in claims 10, 11 and 16. In addressing the rejection of claims 28-30, the Examiner recognizes that the combination of Lang and Takada et al. would not result in the features of the buffer control means for controlling recording and reproduction of the disc recording means, as now described in claims 10, 11 and 16. He contends, however, that Lang and Takada further combined with Radice would disclose this feature.

Applicants respectfully submit that it would not have been obvious to combine Radice with Lang and Takada et al. because there is no teaching or suggestion to do so. Assuming that it would have been possible to initially combine Lang and "Takada et al.," the resulting device would include a digital video tape recording device and a disc recording device, and a data transfer circuit for transferring data between these devices, in particular digital video data.

The Radice reference relates to an interface apparatus for enabling a digital video recorder to function as a universal data recorder. The reference teaches that a random input data stream is converted to a format that emulates a video signal, and that random data is defined as data being in any format which can comprise non-video data such as text data, numerical data or

control data (see the Abstract and col. 4, lines 30-33). If the combination of Lang and Takada et al. does in fact disclose the features of claims 10, 11 and 16, then the data transferred between a digital video tape recording device and a disc recording device would be digital video data as in the present invention. In other words, the type of data transferred between the devices would be known, i.e., digital video data. Thus, there would be no reason for one of ordinary skill in the art to look to a reference that teaches transferring unknown data to and from a digital video recorder, since he or she would know that the type of data being transferred between a disc recording device and a digital video tape recording device would be digital video data. In other words, there is no teaching or suggestion in the references to make the combination suggested by the Examiner. If anything, the Radice reference teaches away from making such a combination. For these reasons, independent claims 10, 11 and 16, along with their respective dependent claims 12, 13, 15, 21, 22, 24, 25, 27 and 28-30 are allowable over the cited references.

Claims 28-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lang in view of Takada et al. and Radice. Applicants respectfully traverse this rejection for the reasons given with respect to their respective independent claims 10, 11 and 16, from which claims 28-30 depend, and because of the additional features recited in claims 28-30, including the newly added features.

In light of the above, Applicants respectfully submit that independent claims 10, 11 and 16, as amended, as well as claims 12, 13, 15, 21, 22, 24, 25, 27 and 28-30 which depend therefrom, are both not anticipated and non-obvious over the art of record. Accordingly, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claims 10, 11, 16 and 28-30 have been amended as follows:

10. (Three times amended) A video data recording and reproducing system for editing a source video data, said system comprising:

a digital video tape recording means for digitally recording a source video data onto a tape medium at a first data rate during a source video data recording period and for reproducing recorded video data from said tape medium at said first data rate and at a second data rate which is faster than said first data rate to generate reproduced video data;

a disc recording means for recording said reproduced recorded video data onto a disc medium at said second data rate so that said source video data may be copied from said tape medium to said disc medium during a transfer period which is shorter than said recording period of said source video data;

a digital data transfer circuit for transferring digital video data between ~~each of~~ said digital video tape recording means and said disc recording means, ~~and a digital input/output device~~ at said first and second data rates, said digital data transfer circuit including buffer control means for controlling recording and reproduction of said disc recording means according to remaining capacity of at least one buffering means for buffering the digital video data;

an editing means for controlling a reproducing operation of said disc recording means to generate edited video data which include a plurality of edit portions designated by an editing operation from said video data recorded on said disc medium,

wherein said editing means controls said reproducing operation of said disc recording means and said recording operation of said digital video tape recording means so that said edited video data may be reproduced from said disc medium and recorded on said tape medium at said second data rate.

11. (Three times amended) A video data recording and reproducing system for editing a source video data, said system comprising:

a digital video tape recording means for digitally recording a source video data onto a tape medium at a first data rate during a source video data recording period and for reproducing

recorded video data from said tape medium at said first data rate and at a second data rate which is faster than said first data rate to generate reproduced video data;

a disc recording means for recording said reproduced recorded video data onto a disc medium at said second data rate so that said source video data may be copied from said tape medium to said disc medium during a transfer period which is shorter than said recording period of said source video data;

a digital data transfer circuit for transferring digital video data between each of said digital video tape recording means and said disc recording means, ~~and a digital input/output device~~ at said first and second data rates, said digital data transfer circuit including buffer control means for controlling recording and reproduction of said disc recording means according to remaining capacity of at least one buffering means for buffering the digital video data;

an editing means for controlling a reproducing operation of said disc recording means to generate edited video data which include a plurality of edit portions designated by an editing operation from said video data recorded on said disc medium,

wherein said editing means controls said reproducing operation of said disc recording means and said recording operation of said digital video tape recording means so that said edited video data may be reproduced from said disc medium and recorded on said tape medium at said first data rate.

16. (Twice amended) A video data recording and reproducing system for editing a source video data, said system comprising:

a digital video tape recorder configured to digitally record a source video data onto a tape medium at a first data rate during a source video data recording period, and configured to reproduce recorded video data from said tape medium at said first data rate and at a second data rate which is faster than said first transfer rate to generate reproduced video data;

a disc recorder configured to record said reproduced recorded video data onto a disc medium at said second data rate so that said source video data may be copied from said tape medium to said disc medium during a transfer period which is shorter than said recording period of said source video data;

a digital data transfer circuit for transferring digital video data between each of said digital video tape recording means and said disc recording means, ~~and a digital input/output~~

~~device~~ at said first and second data rates, said digital data transfer circuit including buffer control means for controlling recording and reproduction of said disc recording means according to remaining capacity of at least one buffering means for buffering the digital video data;

an editing designation circuit configured to control a reproducing operation of said disc recorder to generate edited video data which include a plurality of edit portions designated by an editing operation from said video data recorded on said disc medium; and

a control circuit, coupled to said video tape recorder, said control circuit configured to control a recording operation of said video tape recorder to record said edited video data.

28. (Once amended) The video data recording and reproducing system according to claim 11, wherein said data transfer circuit includes:

an input buffering means, coupled to said video tape recording means and said disc recording means, for buffering said reproduced video data; and

an output buffering means, coupled to said video tape recording means and said disc recording means, for buffering said edited video data; and

a wherein said buffer control means; is coupled to said input buffering means, said output buffering means, and said disc recording means, for controlling recording and reproduction of said disc recording means according to respective remaining capacities of said input and output buffering means; and starts reproduction of said disc recording means where the remaining recording capacity of said input buffering means or said output buffering means is less than a predetermined lower limit setting, and stops reproduction of said disc recording means where said remaining recording capacity of said input buffering means or said output buffering means is at least a predetermined upper limit setting.

29. (Once amended) The video data recording and reproducing system according to claim 10, wherein said data transfer means includes:

an input buffering means, coupled to said video tape recording means and said disc recording means, for buffering said reproduced video data; and

an output buffering means, coupled to said video tape recording means and said disc recording means, for buffering said edited video data; and

a wherein said buffer control means, is coupled to said input buffering means, said output buffering means, and said disc recording means, for controlling recording and reproduction of said disc recording means according to respective remaining capacities of said input and output buffering means-, and starts reproduction of said disc recording means where the remaining recording capacity of said input buffering means or said output buffering means is less than a predetermined lower limit setting and stops the reproduction of said disc recording means where said remaining recording capacity of said input buffering means or said output buffering means is at least a predetermined upper limit setting.

30. (Once amended) The video data recording and reproducing system according to claim 16, wherein said data transfer circuit includes:

a write buffer circuit, coupled to said video tape recorder and said disc recorder, said write buffer circuit configured to buffer said reproduced video data; and

a read buffer circuit, coupled to said video tape recorder and said disc recorder, said read buffer circuit configured to buffer said edited video data; ~~and~~

a wherein said buffer control circuit, is coupled to said input buffer circuit, said output buffer circuit, and said disc recorder, ~~said buffer control circuit~~ and configured to control recording and reproduction of said disc recording means according to respective remaining capacities of said input and output buffer circuits-, and starts reproduction of said disc recording means where the remaining recording capacity of said input buffering means or said output buffering means is less than a predetermined lower limit setting and stops the reproduction of said disc recording means where said remaining recording capacity of said input buffering means or said output buffering means is at least a predetermined upper limit setting.